3Com® IntelliJack® Switch Family: International–Standard

DATA SHEET

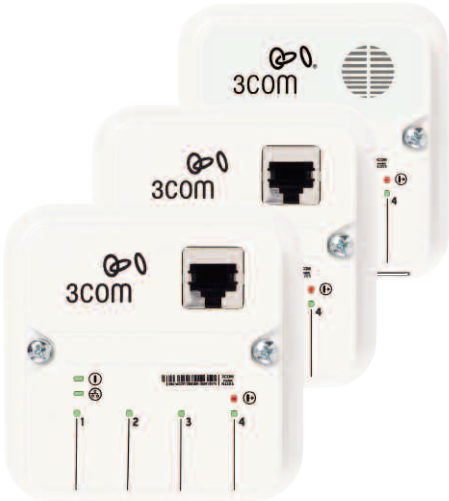
Transform a simple LAN connection into an intelligent, four-port, in-the-wall Fast Ethernet switch

OVERVIEW

3Com® IntelliJack® switches quickly convert a single-port LAN wall outlet into four switched Fast Ethernet ports. These intelligent, in-the-wall "network jacks" deliver simple, economical connectivity to users in hard-to-wire older buildings, crowded office spaces, public areas and virtually any other networked environment. Unlike conventional switches, 3Com IntelliJack devices take up no horizontal space and are difficult to accidentally disconnect or damage. Each switch delivers traffic prioritization for converged applications.

The 3Com IntelliJack Switch Family (international-standard) offers a choice of three models:

- IntelliJack Switch NJ225—provides an array of advanced management, switching and security features for copper networks; flexible power options include Power over Ethernet (PoE), local AC power and power forwarding; pass-through port adds a single LAN link.
- IntelliJack Switch NJ225FX—delivers advanced management, switching and security for fiber LANs; an internal AC power supply with power forwarding is included.
- IntelliJack Switch NJ105—provides the same features as the NJ225 model, but without the management, switching and security enhancements.



KEY BENEFITS

COST-SAVING INFRASTRUCTURE EXPANSION

With innovative 3Com IntelliJack switches, organizations can quadruple the number of LAN ports in almost any location—incurring significantly lower costs and experiencing less business disruption than if they were to deploy conventional switches and install additional Ethernet cable.

ADAPTABLE DEVICE CONNECTIVITY

One 3Com IntelliJack switch provides four 10/100 Mbps switched ports. The NJ225 and NJ105 models are equipped with an additional pass-through LAN connection. The NJ225FX model turns a single, two-fiber multimode cable into four 10/100 switched ports.

INNOVATIVE IN-THE-WALL INSTALLATION

The compact, wall-mounted units reduce workspace clutter and protect connections from tampering, damage and theft. The switches mount without disturbing walls, making them particularly well suited for older buildings and facilities where installing new wiring is difficult.

FLEXIBLE POWER OPTIONS

Power sources* for IntelliJack NJ225 and NJ105 switches include inline IEEE 802.3af PoE, a local AC power adapter and power forwarding. The NJ225FX model comes with its own internal AC power supply and also supports power forwarding to a downstream device. The NJ225 FX model can also be powered by a "phoenix style" connection (common in Germany) that requires no additional equipment.

CONVERGED SECURE NETWORKING

IntelliJack switches support a number of advanced capabilities for converged networks, including IEEE 802.1p and IP v4 traffic prioritization to ensure the proper quality of service (QoS) levels. To enhance service and security, the IntelliJack NJ225 and NJ225FX can also label voice traffic as high priority and route it through its own virtual LAN (VLAN). Security features for the NJ225 and NJ225FX models include VLANs, IEEE 802.1X network login, MAC filtering and port-based rate limiting by speed and type, helping to prevent network abuse and unauthorized access.

FULL COMPLEMENT OF MANAGEMENT CAPABILITIES

The enterprise-ready IntelliJack NJ225 and NJ225FX switches come bundled with software utilities that help streamline administration tasks. The switches can be discovered and controlled by most SNMP-compliant management platforms, including 3Com Network Supervisor and HP OpenView. 3Com Local Configuration Manager eases installation and configures the switches to support central management, while Central Configuration Manager provides remote monitoring for single switches or groups of switches. In addition, a location-mapping feature aids troubleshooting and IT asset inventories.

SEAMLESS INFRASTRUCTURE INTEGRATION

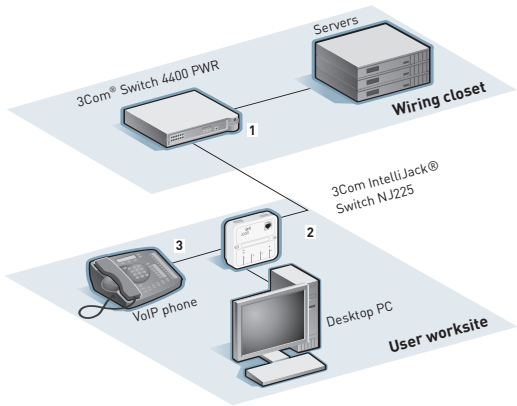
IntelliJack switches fully comply with Ethernet, Fast Ethernet, Voice over IP (VoIP), PoE and relevant building and telecommunications wiring specifications.

* Sold separately.

FEATURE HIGHLIGHTS AND MODEL COMPARISON

Feature	IntelliJack Model NJ225	NJ225FX	NJ105
Quadruples LAN connections by providing four 10/100 switched Ethernet ports	✓	✓	✓
Designed for in-the-wall operation to accommodate virtually any location, reducing installation costs and potential disruption of service	✓	✓	✓
Mounts in standard U.K./EU wall cutouts	✓	✓	✓
Provides a copper 10/100 pass-through port	✓		✓
Complies with Ethernet, VoIP, telecom and building standards	✓	✓	✓
Optimizes converged applications with network traffic prioritization	✓	✓	✓
Includes ToS/DiffServ and multicast flooding control for advanced switching	✓	✓	
Can be supplied with IEEE 802.3af PoE	✓		✓
Runs on local AC power with 3Com IntelliJack Switch Power Supply (3CNJPSL)	✓		✓
Comes with its own AC power supply		✓	
Forwards PoE to another device	✓	✓	✓
Works with standards-based SNMP network management applications, including 3Com Network Supervisor and HP OpenView	✓	✓	
Supports IEEE 802.1X network login	✓	✓	✓
Offers MAC filtering and port-based rate limiting for enterprise-level security	✓	✓	
Supports IEEE 802.1Q VLANs for improved security and monitoring	✓	✓	
Catalogs IntelliJack switches and devices connected to it, facilitating physical locating	✓	✓	
Provides 3Com Local Configuration Manager to streamline installation and configuration	✓	✓	
Provides 3Com Central Configuration Manager for remote monitoring and management from a central location	✓	✓	

DEPLOYMENT OF INTELLIJACK SWITCH AT USER SITE



IEEE 802.3af-compliant Power over Ethernet network configuration with power forwarding to another device:

1. 3Com Switch 4400 PWR delivers data and power over Category 5/5e cabling.
2. The switched ports of the 3Com IntelliJack Switch prioritize voice and data traffic for connected devices.
3. IntelliJack Switch forwards Power over Ethernet to a 3Com IEEE 802.3af-compliant phone or other 802.3af-compliant device.

SPECIFICATIONS

PORTS

IntelliJack Switch
All: four 10/100BASE-TX ports, RJ-45 connectors

NJ225 and NJ105: one 10/100BASE-TX port for uplink

NJ225FX: one multi-mode 100BASE-FX (SC or ST connector available)

Pass-through
NJ225 and NJ105: one RJ-45

Multimode Fiber (NJ225FX)
850 nm wavelength:

50/125 µm cable, 500 MHz•km bandwidth, 3.5 dB/km attenuation

62.5/125 µm cable, 200 MHz•km bandwidth, 3.5 dB/km attenuation

1300 nm wavelength:

50/125 µm cable, 500 MHz•km bandwidth, 1.5 dB/km attenuation

62.5/125 µm cable, 500 MHz•km bandwidth, 1.0 dB/km attenuation

SECURITY

Network login with IEEE 802.1X user authentication

MAC address filtering and port-based rate limiting

POWER OVER ETHERNET (POE)

IEEE 802.3af PoE forwarding through port #4 of device

NJ225 and NJ105 can be provisioned by PoE

MANAGEMENT*

IEEE 802.1Q VLANs, IEEE 802.1p QoS, DHCP; port-level control; location mapping

Compatible with SNMP v1 and most SNMP-compliant management platforms

Supplied with 3Com Central Configuration Manager and 3Com Local Configuration Manager

DIMENSIONS

Switch NJ225, NJ105:
Height: 7.5 cm (3.00 in)
Width: 7.0 cm (2.80 in)
Depth: 2.8 cm (1.10 in)

Switch NJ225FX:
Height: 7.5 cm (3.00 in)
Width: 7.0 cm (2.80 in)
Depth: 7.0 cm (2.80 in)

24-port midspan PSE:
Height: 4.4 cm (1.73 in)
Width: 43.3 cm (17.04 in)
Depth: 30.2 cm (11.88 in)

Single-port midspan PSE:
Height: 2.6 cm (1.02 in)
Width: 6.4 cm (2.52 in)
Depth: 10.2 cm (4.02 in)

AC power supply:
Height: 3.8 cm (1.50 in)
Width: 5.1 cm (2.00 in)
Depth: 8.9 cm (3.50 in)

POWER OPTIONS

NJ225 and NJ105: Provisioned by any IEEE 802.3af-compliant PoE source and most 24 VDC and 48 VDC inline sources; 3Com IntelliJack Switch Power Supply (3CNJPSL) is required where LAN does not have Power over Ethernet

NJ225FX: integrated power supply can accept 100-240 VAC (as supplied by selected raceways); local AC power (3CNJPSL) may also be used

POWER SUPPLY

NJ225FX (integral): 100-240 VAC, 50-60 Hz

IntelliJack Switch Power Supply (for use with NJ225 and NJ105): 110/120 VAC, 50-60 Hz; supplies 48 VDC

LED INDICATORS

Unit power, link activity/status of ports, power forwarding

ENVIRONMENTAL REQUIREMENTS

Operating temperature: 0° to 35°C (32° to 95°F)

Storage temperature: -30° to 90°C (-22° to 194°F)

Humidity (operating and storage): 10% to 90% non-condensing

IEEE STANDARDS SUPPORTED

IEEE 802.1D (Bridging)
IEEE 802.1p (CoS)
IEEE 802.1Q (VLANs)*
IEEE 802.1X (Security)
IEEE 802.3 (Ethernet)
IEEE 802.3af (Power over Ethernet)
IEEE 802.3i (10BASE-T)
IEEE 802.3u (Fast Ethernet)

CERTIFICATIONS

Emissions and Safety:
CE marking

EN 60950

EN 55022 Class B (NJ 225 FX, Class A only)

EN 55024

Building:
U.K. and DIN Standard

PACKAGE CONTENTS

Switch NJ225, NJ225FX, NJ105:
One switch with mounting screws, trim ring, user guide; NJ225 and NJ225FX include quick start guide and CD-ROM with management utilities

PoE midspan solutions:
Midspan PSE, power cord

IntelliJack Switch Power Supply:
AC power adapter, power cord

WARRANTY

Limited Lifetime Hardware Warranty (NJ225 and NJ105); Three-year Limited Hardware Warranty (NJ225FX). Limited Software Warranty for ninety (90) days. See www.3com.com/warranty for details.

* NJ225FX and NJ225 models

ORDERING INFORMATION

PRODUCT DESCRIPTION	3COM SKU
Switches	
3Com IntelliJack Switch NJ225	3CNJ225
3Com IntelliJack Switch NJ225FX with SC Connector	3CNJ225FX-SC
3Com IntelliJack Switch NJ225FX with ST Connector	3CNJ225FX-ST
3Com IntelliJack Switch NJ105	3CNJ105
Switch Adapter Plates	
3Com IntelliJack Switch Int'l Model Floor Box Mounting Plate	3CNJMP-FLR
3Com IntelliJack Switch Int'l Model Raceway Mounting Plate	3CNJMP-FR
3Com IntelliJack Switch Int'l Model Trim Ring Spacer	3CNJMP-SPR
3Com IntelliJack Switch Int'l Model Double-gang Mounting Plate (U.K.-style)	3CNJMPD-UK

PRODUCT DESCRIPTION	3COM SKU
Power and Accessories	
3Com Power over Ethernet Multiport Midspan Solution (24 ports, 802.3af-compliant)	3CNJPSE24
3Com Power over Ethernet Single-Port Midspan Solution (48 VDC)	3CNJPSE
3Com IntelliJack Switch AC Power Supply	3CNJPSL
3Com IntelliJack Switch Int'l Model Extension Ring	3CNJMP-EXT

Visit www.3com.com for more information about 3Com secure converged network solutions.

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